



PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

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| Applicant's or agent's file reference BLOal538/94 | | FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/PEA/416) | |
| International application No. PCT/IB 03/05142 | International filing date (day/month/year) 24.10.2003 | Priority date (day/month/year) 24.10.2003 | |
| International Patent Classification (IPC) or both national classification and IPC F01D9/02 | | | |
| Applicant HONEYWELL INTERNATIONAL INC | | | |
| <p>1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of 6 sheets, including this cover sheet.</p> <p><input type="checkbox"/> This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).</p> <p>These annexes consist of a total of sheets.</p> <p>3. This report contains indications relating to the following items:</p> <ul style="list-style-type: none"> I <input checked="" type="checkbox"/> Basis of the opinion II <input type="checkbox"/> Priority III <input type="checkbox"/> Non-establishment of opinion with regard to novelty, inventive step and industrial applicability IV <input type="checkbox"/> Lack of unity of invention V <input checked="" type="checkbox"/> Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement VI <input type="checkbox"/> Certain documents cited VII <input type="checkbox"/> Certain defects in the international application VIII <input type="checkbox"/> Certain observations on the international application | | | |
| Date of submission of the demand 20.05.2005 | | Date of completion of this report 17.11.2005 | |
| Name and mailing address of the international preliminary examining authority:  European Patent Office - P.B. 5818 Patentlaan 2 NL-2280 HV Rijswijk - Pays Bas Tel. +31 70 340 - 2040 Tx: 31 651 epo nl Fax: +31 70 340 - 3016 | | Authorized Officer O'Shea, G Telephone No. +31 70 340-4424  | |

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**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT**

International application No. PCT/IB 03/05142

I. Basis of the report

1. With regard to the elements of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17):*

Description, Pages

1-11 as originally filed

Claims, Numbers

1-14 as originally filed

Drawings, Sheets

1/4-4/4 as originally filed

2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
☐ the language of publication of the international application (under Rule 48.3(b)).
☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
☐ filed together with the international application in computer readable form.
☐ furnished subsequently to this Authority in written form.
☐ furnished subsequently to this Authority in computer readable form.
☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description, pages:
☐ the claims, Nos.:
☐ the drawings, sheets:

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5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)).

(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)

6. Additional observations, if necessary:

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

| | | |
|-------------------------------|-------------|------|
| Novelty (N) | Yes: Claims | |
| | No: Claims | 1-14 |
| Inventive step (IS) | Yes: Claims | |
| | No: Claims | 1-14 |
| Industrial applicability (IA) | Yes: Claims | 1-14 |
| | No: Claims | |

2. Citations and explanations

see separate sheet

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IP20 Rec'd PCT/TO 21 APR 2006

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Re Item V

**Reasoned statement with regard to novelty, inventive step or industrial applicability;
citations and explanations supporting such statement**

1. Reference is made to the following documents:
D1: DE 102 12 675 A (DAIMLER CHRYSLER AG) 2 October 2003
D2: DE 42 42 494 C (MERCEDES-BENZ AG) 9 September 1993
2. The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claims 1-14 is not new in the sense of Article 33(2) PCT.
- 2.1 With regard to claim 1, the document D1 discloses (the references in parentheses applying to this document):

A turbine housing assembly (see figures 1 and 2) for an exhaust-gas-driven turbocharger turbine, comprising:

a sector-divided turbine housing (1)(col.3, lines 30-34) defining a generally annular chamber structured and arranged to surround a turbine wheel (3), a plurality of circumferentially spaced dividing walls (25,26) extending generally radially inwardly from a radially outer wall of the chamber and dividing the chamber into a plurality of separate angular sectors (see figure 2) each of which occupies a fractional part of a circumference of the chamber, the sectors succeeding one another in a circumferential direction of the chamber, each sector of the chamber at a radially inward side thereof having an axial length;

a vane assembly (10) for guiding flow from the chamber into the turbine wheel, the vane assembly comprising vanes (see figure 1) that include at least dividing vanes (23,24), the dividing vanes corresponding in number to the number of dividing walls (see figure 2), each dividing vane forming an extension of one of the dividing walls (see figure 2) and extending generally radially inwardly from the dividing wall and terminating at a trailing edge of the dividing vane, the dividing vanes thereby extending the sector-division of the turbine housing to the trailing edges of the dividing vanes (see figure 2); and a variable-geometry mechanism (see figure 1) comprising a tubular piston (16) disposed radially inward of the chamber, the piston being axially slidable relative to the chamber between a relatively open position and a relatively closed position in which a fractional portion of the axial length of the sectors

- is blocked by the piston so as to limit flow into the turbine wheel (see figure 1),
- wherein the piston and the dividing vanes overlap radially (see figure 1), the dividing vanes are mounted on one of the piston and a fixed structure (22) of the turbine
- **housing**, [and the dividing vanes are received in axially extending slots of the other of the piston and the fixed structure when the piston is in the closed position (implicit feature)].

The wording in the brackets [] relates to a method of using the apparatus rather than clearly defining the apparatus in terms of its technical features. This part of the claim does not limit the scope of the protection in an unambiguous way and has therefore been regarded as not being limiting to the scope of protection thereof. Nevertheless, the disclosure of D1 is prejudicial to the novelty of this feature as well as to the claim as a whole.

For these reasons, claim 1 does not meet the requirements of Article 33(2) PCT. The disclosure of Document D2 is also prejudicial to the novelty of the subject-matter of claim 1.

- 2.2 The same reasoning applies, mutatis mutandis, to the subject-matter of corresponding independent claim 8, which therefore is also considered not new.
- 2.3 Dependent claims 2-7 and 9-14 do not contain any features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT in respect of novelty, see documents D1 and D2 and the corresponding passages cited in the search report.

Document D1 discloses all the features of claims 2-4, 9 and 10.
Document D2 discloses all the features of claims 5-7 and 11-14.

3. In the event of new claims being filed, the attention of the applicant is brought to the following:
- 3.1 Contrary to the requirements of Rule 5.1(a)(ii) PCT, the relevant background art disclosed in the documents D1 and D2 is not mentioned in the description, nor are these documents identified therein.

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- 3.2 The features of the claims are not provided with reference signs placed in parentheses (Rule 6.2(b) PCT).
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